

NEWSLINE

Published weekly for employees of Lawrence Livermore National Laboratory

Friday, November 11, 2005

Vol. 30, No. 44

Lab faces challenges and change

“This past year was another outstanding year for the Laboratory,” Director Michael Anastasio told employees Wednesday in his semi-annual Lab update. “We had many challenges and we met them. There are more challenges ahead and it will require all of us to pull together to face them. It will mean some change — but I think it will be for the better.”

His one-hour address covered five major topics: safety; accomplishments during the past year; the budget; contract competition and positioning the Laboratory for the future.

Safety

Anastasio began by highlighting safety and making special note that we are entering the holiday season. He stressed the importance of recognizing those special, if infrequent, hazards that are part of the holidays, “whether it is cutting the turkey with a newly sharpened knife



JACQUELINE MCBRIDE/NEWSLINE

Michael Anastasio

or climbing the ladder to clean gutters or put up holiday lights. Spend an extra moment to think about

See ANASTASIO, page 7

Lab's FY06 budget takes shape as appropriations bill makes its way through Congress

By Bob Hirschfeld

NEWSLINE STAFF WRITER

Many Lab programs moved a step closer to receiving their FY06 budget this week, after the House of Representatives approved the Energy and Water Development Appropriations conference agreement on Wednesday.

It will be considered next week in the Senate. Contingent upon approval by the Senate and the President, the Department of Energy will develop allocations for its sites, including LLNL, based upon the figures recommended in this bill.

The bill provides funding for all DOE programs including the majority of the efforts at the Laboratory that are managed by DOE's Office of Science and the National Nuclear Security Administration (NNSA).

The NNSA funding includes \$1.63 billion in defense nuclear nonproliferation and \$6.43 billion in weapons activities that are close to the budgets requested by President Bush.

The weapons activities include funding for the Lab's programs in directed stockpile work, the Advanced Simulation and Computing Campaign, the Inertial Confinement Fusion and High Yield

See BUDGET, page 8

Aurora project teams bring forth initiatives for Lab's 2025 vision



Predictive knowledge systems to extract insight from massive data sets to assist in global security, a new external user laser facility, research and development to understand what happens at the membrane of proteins, and transformational materials research and development that supports nuclear weapons and the future of fusion.

These are a few of the initiatives brought forth by team members as part of Aurora, the Lab's 2025 strategic vision process.

At his all hands meeting on Wednesday, as well as a special meeting for the more than 100 Aurora participants on Tuesday, Director Michael Anastasio discussed the various initiatives and ways the Lab will fund and address

See AURORA, page 7

Modern physics in concert with Einstein theories

By Charles Osolin

NEWSLINE STAFF WRITER

Two very different types of strings — the kind that produce sublime music, and the kind that spring from elegant theories about the nature of the universe — were the focus of Monday's Director's Distinguished Lecturer Series presentation.

Particle physicist Brian Foster of Oxford University and British violinist Jack Liebeck entertained and stimulated an overflow audience in the Bldg. 123 auditorium with a review of the last 100 years of physics theory, punctuated by musical inter-

See DDLS, page 4



BOB HIRSCHFELD/NEWSLINE

Violinist Jack Liebeck (left) was joined by Brian Foster, for a duet by the 18th century composer Luigi Boccherini, at the conclusion of Monday's DDLS. Foster, a professor of experimental physics at Oxford University, punctuated his topic, “Einstein to Superstrings,” with Liebeck's violin virtuosity. The backdrop shows Einstein playing the violin as well.



Doing some HOME work

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New year, new LLLWA officers

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Prosnitz strikes balance in Science

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LAB COMMUNITY NEWS

Weekly Calendar

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Monday
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High school seniors may submit their essays to the Work-Life Center's annual **Martin Luther King Jr. essay contest** no later than today. Two scholarships in the amount of \$750 each will be awarded for the two best essays honoring King. Awards will be presented in January at the Lab's Martin Luther King Jr. celebration where recipients will be asked to read their essays. For more information, go to <http://cmg-r-rr.llnl.gov/ADA/news/detail/mlk.pdf> or contact the Work-Life Center, 2-9543.

Wednesday
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There will be a **U-Learn demonstration** at 11:30 a.m. to 1 p.m. at the Central Cafeteria. Learn about this complete online training and reference toolkit that offers Lab employees instant access to information when needed. For more information and to register, go to <http://ulearn.llnl.gov/> If you have questions, contact the U-Learn Administrator at u-learn@llnl.gov or 2-5951.

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The Livermore Library's "**Meet the Author**" series features science fiction writer Kevin Anderson and his wife and co-author Rebecca Moesta at 7 p.m. in the library's Civic Center Craft Room. Anderson, a former Laboratory employee, is one of today's leading science fiction writers with 32 bestsellers. Copies of their books will be available for sale and signing following the program. The program is presented with the support of the Friends of the Library. For more information call the Livermore Public Library, 373-5500.

Thursday
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The Lab's Center for Advanced Signal and Imaging Sciences and the Engineering Directorate will present the 12th annual "**Signal and Imaging Sciences Workshop**," from 8:15 a.m.- 4:30 p.m. today and Nov. 18 in the Bldg. 123 auditorium. Keynote speaker James Flanagan, Rutgers University vice president for Research and the director of the Center for Advanced Information Processing, will present "Natural Interfaces for Information Systems." There is no cost to attend. To register, go to http://casis.llnl.gov/pdf/workshop_flyer_05.pdf. For more information, contact Dora Da Rosa, 2-4797, or go to <http://casis.llnl.gov>.

Greenville Road opening delayed to February

The Lab's Traffic Safety Committee has been notified by Livermore city engineer Harjit Sidhu that the reopening of Greenville Road faces another delay.

According to Sidhu, in early September the city's contractor had completed the new bridge, making it ready for Union Pacific Railroad (UPRR) construction crews to relocate its tracks onto the new structure.

"Unfortunately, UPRR does not allow others to perform their track relocation work," Sidhu explained. Because the railroad has limited personnel available for repair and construction work,

higher priority work or emergency repairs can delay their start on lower priority projects.

On Sept. 26, the city was informed by UPRR that they anticipated starting work around the first week of November. But that start never happened.

On Nov. 3, the city received a letter stating that the railroad will begin track relocation after the first of the year. As a result, the schedule for the Greenville Road reopening now will be delayed until late February 2006.

For more information, contact Harjit Sidhu at hssidhu@ci.livermore.ca.us.

IN MEMORIAM

Doree Coronado

Doree Coronado of Livermore died Nov. 3. She was 69.

Coronado was born in Los Angeles on June 18, 1936. She graduated from Livermore High School in 1954. She worked as a secretary in the Chemistry division at the Lab for 36 years. She enjoyed crocheting, reading, bowling and taking her children on trips.

She was preceded in death by her mother, Amelia Kaufman; her father, Paul Dominquez; and her brothers, Art Renteria and Paul "Tito"

Dominguez.

She is survived by her husband of 51 years, Yssa "Cisco" Coronado; daughters Rene Coronado of Santa Clara; Rachele Coronado-Hauser of Livermore; and Jessie Wharregard of Railroad Flat; sons Jack Coronado of Sacramento; Doug Coronado of Gridley; sister Minnie Pedersen; and brothers Dan Dominguez, Jerry Dominguez, and David Dominguez; 10 grandchildren; and six great grandchildren.

Private services will be held.

Thomas Donald Dow

Thomas Donald Dow died Oct. 31 after a two-year battle with multiple myeloma. He was 71.

Dow was born in Oklahoma City in 1934 and grew up in Bartlesville, Okla. He attended Oklahoma State University, graduating with a degree in mechanical engineering.

A retired quality assurance manager in the nuclear industry, Dow did work for the Lab, as well as companies such as General

Electric, Bechtel and PG&E.

He was preceded in death by his daughter, Patricia Bermudez. He leaves his wife of 54 years, Earline; children Susan Kesler, Steven Dow, and James Dow; grandchildren Patricia Nalley, Matthew Dow, Julio Bermudez, Leanne Dow, Thomas Bermudez, and Sara Dow; and great grandchildren Rachael Nalley and Christopher Nalley.

A private memorial service was held in Walnut Creek.

Fred F. Sojka

Fred F. Sojka died Nov. 1. He was 87.

Sojka was born on April 23, 1918, in Chicago. He played professional baseball in the late 1930s and spent his late teens in the Civilian Conservation Corps building roads and clearing forests in Oregon and Wyoming.

He served as a first lieutenant and B24 bomber pilot in the Army Air Corps in World War II and was awarded the Distinguished Flying Cross during his service. He worked in radiography at the Laboratory until his retirement in 1979.

He was an avid golfer and was well-known at Sunol Valley Golf Course.

Sojka was preceded in death by his wife of 62 years, Charlene Sojka. He is survived by his sons, Tyrone Sojka of Colorado and Fred Sojka of California; nine grandchildren and four great-grandchildren.

A private service with military honors will be held at San Joaquin Valley National Cemetery.

Newsline

Newsline is published weekly by the Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

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Distribution: Mail Services at LLNL

Public Affairs Office: L-797 (Trailer 6527), LLNL, P.O. Box 808, Livermore, CA 94551-0808

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LAB TV broadcasts

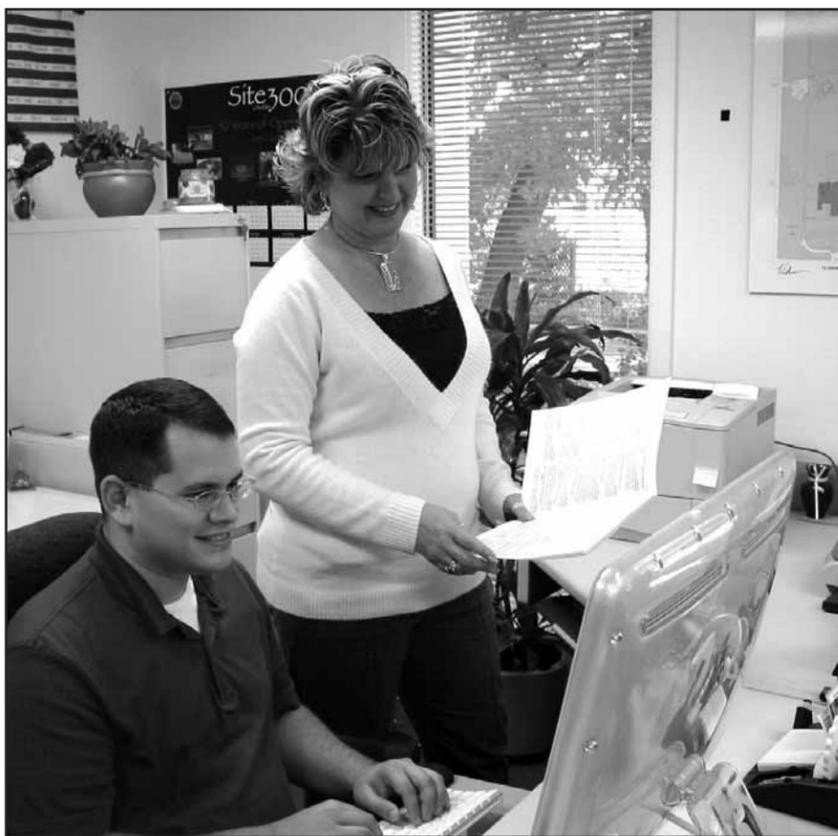
For information about Lab TV broadcasting and video production, contact LLTN, 3-3846.

MONDAY- FRIDAY, NOV. 14-18

Re-broadcast of "Director Michael Anastasio All-hands Meeting." Monday, Tuesday, Wednesday and Friday, Lab TV, Ch. 2, 1 a.m., noon, 2 p.m., 4 p.m., 8 p.m. and 4 a.m. Friday

Re-broadcast of DDLS, "From Einstein to Superstrings," by Brian Foster and Jack Liebeck. Thursday, Nov. 17, Lab Ch. 2, 10 a.m., noon, 2 p.m., 4 p.m., 8 p.m. and 4 a.m. Friday

Laboratory employees do some HOME work



LINDA NULL

Albert Holtman and Joni Dahl work together to help the HOME Campaign's donation process run smoothly.

Behind the scenes of the HOME Campaign are two employees who have helped to make sure that your online HOME donation is processed correctly and to the agencies of your choice. They are Albert Holtman and Joni Dahl, who have been busy with the HOME project since June and won't quit until its completion in December.

Holtman, a computer scientist with AIS, helped to create the database that is used for Lab employees' online contributions. This year his focus was to merge many systems into one. Holtman endorses the paperless process, including the option that allowed employees to forgo a hard copy of the HOME brochure.

"Last year twice as many employees donated online in comparison to those who submitted the traditional paper form. This year, so far, more than 1,400 employees have donated online and less than 300 have submitted the paper form," Holtman said.

Hurricane Katrina brought new challenges to this year's campaign. But, according to Holtman, a smaller separate database was easily created for the special one-time donation to hurricane victims. "I am happy to work on a project that helps to raise money for charities," Holtman said.

Dahl is an administrative assistant in DNT. This year, she has been the voice for the HOME Campaign serving as the Lab's point of contact to the agencies represented. Dahl has been responsible for contacting agencies, gathering eligibility information and inviting them to participate in the agency fair held after the Run for HOME last month. She has as much knowledge about each agency as what she has compiled in the binder that she'll be passing on to next year's agency contact.

"It's been wonderful getting acquainted with the representatives from more than 400 agencies supported by the HOME Campaign," Dahl said.

Many incentives for donating to HOME Campaign

To date the HOME Campaign has collected \$899,359. If you turn in your pledge, you may be eligible to win an incentive prize.

Winners will be randomly selected from among those pledging that week and from those pledges received earlier but who have not won a prize. After each drawing, winners will be notified where to pick up their prize. The earlier you donate, the more chances you have to win a prize. Prizes include gift certificates to restaurants, retail stores and sporting events.



Last week's HOME Campaign incentive program winner was Ramona Lull from Mechanical Engineering, who won a gift certificate for pizza at Frankie, Johnnie & Luigi Too restaurant in Dublin.

Packets submitted by noon today, will be eligible for the next prize drawing on Friday, Nov. 18.

For more information on the HOME Campaign or to donate online, go to <http://cmg-home.llnl.gov/index.html>

HOME incentive schedule

Turn in your packets by noon, Fridays. . .	for drawings on these dates
Friday, Nov. 4	Friday, Nov. 11
Friday, Nov. 11	Friday, Nov. 18
Friday, Nov. 18	Wed., Nov. 23
Wed., Nov. 23	Friday, Dec. 2
Friday, Dec. 2	Friday, Dec. 9
Friday, Dec. 9	Friday, Dec. 16

A fair with some benefits

Tony Baylis, sitting, gets a health checkup from PacificCare representative Danielle Lewis. The Lab's Benefits Fair was held Wednesday in the Central Cafeteria. Representatives from each of the UC insurance carriers, as well as representatives from savings and investment programs, were available.

As part of this month's open enrollment, the Benefits Office has scheduled a series of brown bag presentations to discuss open enrollment on Nov. 15, 17 and 22 in Bldg. 571, room 2301 from noon to 1 p.m. No pre-registration is required.



JACQUELINE MCBRIDE/NEWSLINE



NEWS YOU CAN USE

DDLs

Continued from page 1

cludes and analogies.

The presentation, "From Einstein to Superstrings," was part of the Laboratory's celebration of the World Year of Physics, an international observation of the 100th anniversary of Albert Einstein's "miracle year" in which he wrote five seminal papers that form the foundation of modern physics.

Foster noted that while Einstein played the piano and organ, the violin was his favorite instrument, and he would often take a break from his groundbreaking "thought experiments" on the relationship between space and time to play a few chords. "Life without playing music is inconceivable to me," he once remarked. In keeping with Einstein's preference for the music of Bach and Mozart, Liebeck played two excerpts from Bach's Sonata No. 1 in G minor for solo violin, BWV 1001.

Even though Einstein's theories of special and general relativity and his early work on quantum mechanics won international acclaim and made him the preeminent scientist of the 20th century, Foster noted that his later years were spent in a fruitless effort to unify gravity with the other fundamental forces of the universe — electromagnetism and the strong and weak nuclear forces — and create a single "Theory of Everything."

Because Einstein became uncomfortable with the uncertainties inherent in quantum mechanics, famously remarking, "God does not play dice with the universe," Foster said he tried and failed to develop a unified field theory without quantum mechanics.

"The two legs of his universe are incompatible," Foster said. "Relativity requires a smooth universe, while quantum mechanics shows that the universe isn't smooth, but is made up of structures and spikes. You can't explain gravity using

classical field theory."

Turning to more current theories of the universe, Foster outlined the Standard Model of fundamental particles and interactions, with its seemingly redundant generations of elementary constituents of matter, called quarks and leptons, and force-carrying particles, called gauge bosons. His description of how these subatomic particles are discovered in giant particle accelerators and colliders was illustrated by "Charged," a challenging violin solo written for Foster and Liebeck this year by British composer Anna Meredith.

"She watched Dr. Foster's lecture and then went off and wrote the piece," Liebeck said. "You can probably hear the particles colliding and annihilating."

Current accelerators have insufficient energy to resolve some of the paradoxes and unanswered questions of the Standard Model, such as where particles get their mass, and why gravity is so weak at the subatomic level in comparison to the other fundamental forces. Foster said the Large Hadron Collider (LHC) now under construction at the CERN particle physics laboratory near Geneva, Switzerland, and the future International Linear Collider (ILC), may provide some clues — including the discovery of the Higgs boson and the Higgs field, which may be responsible for generating mass.

Foster said the LHC also might provide insights into the current darling of theoretical physics, superstring theory. According to this theory, which is derived strictly from mathematics and "can't be explained in words," Foster said, the universe is made up of unimaginably tiny, tightly twisted strings that exist in either 10 or 11 dimensions, "depending on whose variation of the theory you prefer."

"The fundamental particles are different excitations of quantum strings," analogous to the harmonics produced by a violin string, Foster said. "The higher the frequency of the 'standing wave' in the string, the more mas-

sive the particle."

Because they are the smallest meaningful measure of length, known as the Planck Length (10⁻³³ centimeters), superstrings exist at the same scale where quantum gravity takes effect. According to the theory, Foster said, "gravity is weak because it propagates through all the extra dimensions" in the superstrings, "so most of its strength gets lost. All we see is a tiny fraction of the gravity that's produced."

Superstrings are much too small to be observed directly, but Foster said their indirect effects might be detected by the LHC, the ILC, or later generations of accelerators. "When superstrings collide in the LHC," he said, "they may form mini-black holes which will have spectacular signatures."

On the other hand, he said, if the LHC is unable to detect any new particles, it would be a strong indication that supersymmetry — the theory that every particle of matter is partnered with a force-carrying particle — is incorrect, and therefore superstring theory, which is derived from supersymmetry, is also incorrect.

"Superstring theory is a beautiful idea that achieves Einstein's dream of unifying the fundamental forces of the universe," Foster said. Unfortunately, "there's not a single shred of evidence that superstrings have any reality."

"If found to be correct, the impact would be similar to that made by Einstein's Theory of Relativity," he said. "It would be a fitting tribute after 100 years and perhaps the first steps toward understanding the Theory of Everything."

To conclude the presentation, Foster took up his violin and joined Liebeck in a spirited performance of the allegro movement from a sonata for two violins by Luigi Boccherini.

"From Einstein to Superstrings" will be broadcast on Lab TV (Channel 2) at 10 a.m., noon, 2, 4, and 8 p.m. Thursday, Nov. 17, and at 4 a.m. Friday, Nov. 18.

Technical Meeting Calendar

Friday
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INSTITUTE OF GEOPHYSICS AND PLANETARY PHYSICS

"The Dark Side of Galaxy Formation," by Ian Smail, Durham University, U.K.

Noon, Bldg. 319, room 205. Property protection area. Foreign national temporary escorted building access procedures apply. Contact: Wil van Breugel, 2-7195, or Lisa Lopez, 3-0250.

Monday
14

INTEGRATED COMPUTING & COMMUNICATIONS DEPARTMENT

"ClearCube Technology," by Gary Pagan and Steven

Lockmiller. 1:30-3 p.m., Bldg. 453, room 1012. Property protection area. Foreign national temporary escorted building access procedures apply. Contact: Mary Ann Chapeta, 4-4103.

CMS/CHEMISTRY & CHEMICAL ENGINEERING DIVISION

"Development of Supported Catalysts from Metal-Dendrimer Nanocomposite Precursors," by D. Samuel Deutsch, University of South Carolina. 11 a.m.-noon, Bldg. 151, room 1209, Stevenson Room. Property protection area. Foreign national temporary escorted building access procedures apply. Contact: Henry Shaw, 3-4645, or Katie Thomas, 2-8050.

Tuesday
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PHYSICS AND ADVANCED TECHNOLOGIES/N DIVISION

"Novel Mechanisms for High Momentum Particle Production in an Opaque Quark-Gluon Plasma," by Denes Molnar, Ohio State

University. 10:30 a.m., Bldg. 211, room 227. Property protection area. No temporary building access for foreign nationals. Contact: Jessica Gowin, 2-7856.

Wednesday
16

INTEGRATED COMPUTING & COMMUNICATIONS DEPARTMENT

"VMWare," by Joe Rowe. 10:30 am, Bldg. 453, room 1012.

VMWare will provide a broader understanding of their ESX class product line server for virtualization and discuss a number of new features to be delivered in their ESX 3.0 (hypervisor) solution. Property protection area. Foreign national temporary escorted building access procedures apply. Contact: Mary Ann Chapeta, 4-4103.

Thursday
17

CENTER FOR APPLIED SCIENTIFIC COMPUTING (CASC)/INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH (ISCR)

"Interface Reconstruction for Multi-Material Flow Simulations," by Mikhail J. Shashkov, Los Alamos National Laboratory. 10 a.m., Bldg. 451, room 1025, White Room. For more information, go to <http://www.llnl.gov/casc/calendar.shtml> Property protection area. Foreign national temporary escorted building access procedures apply. Contact: Ping Wang (CASC) 3-2612, David Bailey (AX Div) 2-5445, or Erica Dannenberg, 3-2167

PHYSICS AND ADVANCED TECHNOLOGIES/N-DIVISION

"Heavy Ion Collisions, Diffusion and the Euclidean Lattice," by Derek Teaney, SUNY at Stonybrook. 10:30 a.m., Bldg. 211, room 227. Common use facility. Foreign nationals

may attend. Contact: Jessica Gowin, 2-7856.

NOVEMBER 17-18 CENTER FOR ADVANCED SIGNAL AND IMAGE SCIENCES (CASIS) AND ENGINEERING DIRECTORATE

"Signal & Imaging Sciences Workshop," 8:15 a.m.-4:30 p.m., Bldg. 123 auditorium. Keynote speaker is James L. Flanagan of Rutgers University. To register, go to http://casis.llnl.gov/pdf/workshop_flyer_05.pdf There is no cost to attend the workshop. Common use facility. Foreign nationals may attend. Contact: Dora Da Rosa, 2-4797, or go to <http://casis.llnl.gov>.

Friday
18

INSTITUTE FOR GEOPHYSICS AND PLANETARY PHYSICS

"The Mystery of Ultra-high Energy Cosmic Rays," by Angela Olinto, University of Chicago. Noon, Bldg. 319, room 205. Property protection area. Foreign national temporary escorted building access procedures apply. Contact: Wil van Breugel, 2-7195, or Lisa Lopez, 3-0250.

The deadline for the next Technical Meeting Calendar is noon Wednesday.

Please submit your meetings through the Technical Meeting Calendar form on the Web, located at <http://www.llnl.gov/tmc/index.html>

For information on electronic mail or the newsgroup llnl.meeting, contact the registrar at registrar@llnl.gov.

AROUND THE LAB



New LLLWA officers for the upcoming year

Lawrence Livermore Laboratory Women's Association (LLLWA) has selected its new slate of officers for 2006.

Sandra Hadley, a 28-year Lab veteran and administrative specialist, will serve again this year as the association's secretary. "There's something to be said for continuity," Hadley said.

Last year's LLLWA president, Deborah Irish, a division administrator in Laser Science Engineering Division in Mechanical Engineering, is returning this year as treasurer. "There is so much positive energy in the group, I had to stay involved." Irish will be celebrating 25 years at the Laboratory in January 2006.

Germaine Clark, the newcomer to the foursome, is an administrator in Biosciences Directorate, and a 26 year Lab veteran. She has worked throughout the Laboratory, and organized many events such as Daffodil Days, and the Lab's annual Administrative Workshop held in June.

Yahel De La Cruz, former association vice-president, has moved into the president's spot. She is a software engineer in AIS matrixed to AHRD working for the People Information Program (PIP). She is looking forward to leading the association through a productive year offering many activities and interesting speakers, along with a few changes.

This year, the annual scholarship awards will be linked to the Women's History Month in March and will include a salute to women of the Laboratory. In addition, the former B Division book sale will now be coordinated through the Women's Association, with proceeds from



JACQUELINE MCBRIDE/NEWSLINE

From left: Sandra Hadley, secretary; Yahel De La Cruz, president; Deborah Irish, treasurer; and Germaine Clark, vice president, are the new officers of the Laboratory Women's Association.

the event going toward Christmas gifts for needy children and LLLWA scholarships. Not the least of the association's goals is the hope to increase membership by at least 20 percent.

"We invite Lab employees — men and women — to join us. There are many networking opportunities here and we have a strong scholarship program that can assist men and women who want to further their education," De La Cruz said.

For more information about the Women's Association and upcoming events, go to the Web at <http://www-r.llnl.gov/lllwa/>

Lab's 'Brighter Holidays' looking for volunteers to sponsor needy families

This year the Brighter Holidays campaign is seeking volunteers (individuals or groups) to sponsor one or more families and provide holiday gifts for those families and their children.

More than 100 families are ready to be placed. If you are interested in sponsoring a family, contact Sherry Pratt at 3-8549 or e-mail pratt3@llnl.gov.

The bicycle donation and repair program traditionally supported by the LLESA Cycletrons Networking Group will be phased out this year due primarily to safety concerns regarding used/refurbished bicycles.

Instead of donating a used bike, the Cycletrons recommend pooling resources to purchase new bikes and helmets to meet the specific needs of the intended recipients. The Cycletrons have generously offered to assemble on their own time any new bikes purchased for an adopted family.

If you have a new bike that needs assembly or would like to donate a gift card from Target or Wal-Mart for purchase of a new bike to be assembled and distributed to adoptive families, contact Kelly Turner at 3-9944 or email turner56@llnl.gov. Many children ask for their first bike through this program and some adults use bikes to get to and from work, so this is a significant component of the Brighter Holidays effort.

For more information, contact Lab employees Sherry Pratt, 3-8549 or Karen Rosenberg, 2-8551.

Documents that help identify environmental aspects of job

The Lab is implementing a comprehensive Environmental Management System (EMS) to meet DOE, U.S. executive order and UC contract requirements. This is another in a series of informational tips that are being posted in *Newsline* and *Newsline* to help employees understand the Lab's environmental activities.

What documents help identify the environmental aspects of my job?

- NEPA Review: determines the overall environmental impacts of a planned project.

- IWS Preparation: reviews work activities and offers potential for early aspect identification.

- Plant Engineering Form 1 Preparation: environmental aspects of the engineering services requested can be identified.

- Procured Services Work Sheet (PWS): identifies environmental aspects that exist at a work location, as well as actions to mitigate their impacts. Specifically identifies aspects such as the presence of materials that are

radioactive or contain lead, beryllium or carcinogens. Also identifies energy and water conservation aspects.

Identifying aspects during the earliest stages of planning and design is the most cost-effective way to reduce environmental impacts. To learn more about the EMS system and environmental aspects, go to http://www-epd.llnl.gov/ems/ems_environmental_aspect.s.htm

Our EMS provides three key benefits

- Improved Environmental Management Structure
- Increased Lab-wide Awareness of Environmental Issues
- Greater Participation of Laboratory Staff



Learn more about our EMS at <http://www-epd.llnl.gov/ems/index.htm>

New 'site-specific' badges issued

A Homeland Security Presidential Directive issued in August is changing the way some employees are badged at the Laboratory.

Current employees will not see any changes to their badges for at least one year. However, as of Oct. 27, all prospective employees who received job offers are issued a non-DOE Security Badge, also known as a site-specific badge. These badges, which will be issued on a temporary basis, are distinguished by their gray and white diagonal stripes and will have an expiration date.

Unlike the DOE standard security badge, the badges will not grant employees access into other DOE labs, such as Sandia.

The directive, known as HSPD-12, mandates a governmentwide standard for secure and reliable forms of identification issued by the federal government to its employees and contractors accessing federally controlled facilities and information systems. Whereas the DOE Standard Badge was created several years ago to allow all DOE laboratory employees access to its facilities, HSPD-12 creates a standard badge for all federal facilities, otherwise known as a "federal credential."

Having a "federal credential" does not mean a Department of Agriculture employee can easily access Department of Defense facilities, or any federal employee will be able to gain easy access to the Lab, said Mark Strauch, deputy associate director for

the Safeguards and Security Organization.

New employees who receive job offers after Oct. 27 and are slated for initial L or Q access authorizations (clearances) will undergo additional security checks under new processes. This will not affect all current holders of L and Q clearances; no badges will be recalled as a result of the directive. Eventually all employees will receive a new badge complete with "smart card" credential and expiration date. This process is not scheduled to begin until October 2006.

Edwin Tippens, of the Personnel Security Division, said several details of this process still must be worked out through the Department of Energy before rebadging can begin. In the meantime, the Lab has begun issuing site specific badges to initially comply with the new directive.

In the meantime, information on this badging process will be made available through *Newsline* and *NewsOnLine* as it becomes available. The Safeguards and Security organization has established a special Website, <http://www-r.llnl.gov/securityprogram/hspd12>, to answer employee questions regarding the new badging process.

For additional information, contact Mark Strauch, HSPD-12 project leader, at 2-1469; Edwin Tippens, Badging and Foreign Visit group leader, at 3-7177; or Scott Colonese, Central Clearance group leader, 3-8057.



CLASSIFIED ADS

See complete classified ad listings at
<https://www.ais.llnl.gov/newsline/ads/>

AUTOMOBILES

1998 - Audi A8 Quattro AWD performance auto. Runs great and has all the benes like heated leather seats, power everything, moonroof, etc... \$12,750. 925-784-7166

1994 - Mercury Villager minivan made by Nissan. 200K mi. GC. Doesn't burn oil; transmission was just checked out. Blue book \$2980. \$2500 b/o 209-544-6411

2002 - Ford Explorer 4WD,XLT,3rd Seat. Real clean. 108k, \$12,950 925-606-0480

1990 - Mazda MPV, 114K mi., dual AC, CC, rebilt. trans, new cooling system, looks/runs great. \$2800 530-478-9658

1986 - Chev. Camaro 2.8 L. good computer, 24 MPG \$1750.00 OBO 209-833-1249

2000 - VW Beetle, 49,500 miles. Silver, abs, air bags, heated seats, sun roof, like new tires, new starter. Very good condition! \$10,000 or OBO. 209-834-1975

1994 - BMW 325i 160K, excellent condition \$8,900 209-601-4137

1997 - El Dorado in beautiful condition. All pwr, tires like new, leather pwr seats, low miles. Just 10,000.00 OBO 510-582-2938

2004 - 350Z touring, excellent condition, 7500 miles, \$32,000 925-846-5801

1993 - Mazda RX7, touring edition, twin-turbo, blue/tan, automatic, 76,000 original miles, new tires, extras, excellent condition, BOSE/CD stereo. \$13,999. 925-449-2099

1979 - Mercedes 450SL hard/soft top. 128K miles, V8, automatic, A/C, car is in great condition. Can email picts. Both tops are near perfect. \$8500 OBO 209-538-1568

1991 - Subaru Legacy all wheel drive, 30 mpg hwy, 28 city, good condition, power windows/doors, lots of room, great in snow, 215k miles, \$1800 obo 209-892-5159

2001 silver VW Beetle, 5-speed manual transmission, black leather, heated seats, 6-disc CD, moon roof, tinted windows, 112,000 highway miles \$7,000 OBO 209-404-5849

2001 - Mercury Cougar, C2 coupe limited edition, fully loaded (leather, 6 disc cd, rally wheels, etc), V6/2.5L, auto trans, 84k mi, excellent cond, \$9,800, 510-847-9471

1994 - Jeep Wrangler, good condition, lifted, new tires and rims 133,000 miles, mostly freeway. \$5000 obo 925-922-2091

1999 - Dodge Grand Caravan ES leather interior, VCR, heated front seat warmers, dual air, CD stereo \$6,200.00 OBO 209-483-3936

1991 - Volvo 240GL, 150k mi. White w/ blue int. Very good condition, 4dr, AC, AT, heated seats. Asking \$3500 OBO. 209-747-2133

AUTOMOBILE ACCESSORIES

14-inch tire, unused 215/70/R14GT road-hugger on mag rim. \$25 OBO 925-447-7070

VW Bug tow bar \$25.00, stock chrome hub caps for 5 lug pattern set of 4 \$40.00. 71 trans axel IRS \$75 and king pin torsion bar front end \$75. 925-846-2843

BICYCLES

Used 21-speed mountain bike w/road tires. Has been regularly serviced. Good for local riding and commuting. \$5/obo. 925-961-0696

Giant OCR2 roadbike in excellent condition, medium frame, 56cm or so. Rarely ridden, upgraded to Trek. \$439 obo 925-240-7374

BOATS

1990 17.5 ft Seaswirl Tempo, excellent condition with 4.3 liter, 6 cycle, 156hp, inboard motor. Trailer included. Asking \$4800/BO 925-846-8300

ELECTRONIC EQUIPMENT

Kaypro II computer. Own a bit of computing history. All software and manuals included. \$100.00 510-581-7553

HP Deskjet 722C Color inkjet printer, max. 600x600 dpi. Prints 8 ppm black & 5 ppm color. Prints on a wide variety of paper types. Works fine. \$35 925-294-5939

Nice starter stereo equipment. Akai stereo cassette deck \$50.00, Sony AM FM stereo receiver, \$50.00. Excellent condition. Can bring to work. 510-537-7222

CRT Monitor. Dell 17-inch flat screen P780. Excellent condition, has been trouble free. Recently upgraded to an LCD screen. \$40 OBO 925-447-7406

C band 10 ft dish and equipment, M/A com with VideoCipher II decoder. Good for free TV at your mountain cabin? \$150. 925-447-2224

35 in Toshiba color TV with S-video and remote. Cherry wood TV/stereo cabinet on casters. Holds TV plus 4-8 stereo components. Both for \$350. 925-736-8604

GIVEAWAY

Love Seat, old fashioned pale floral tapestry, wooden legs, worn arms, otherwise in good condition. 925-447-2315

Kenmore dryer (electric), old but still working. 925-455-8158

Free to good home, female yellow lab and female lab mix. Grown up together and prefer they stay together. Great w/kids. Moving and can not keep. 209-224-7988

21-year-old whirlpool dryer works fine, washer works, but leaks and groans 925-462-6527

HOUSEHOLD

Cardboard boxes, sturdy for moving/storage, folded flat for easy loading; 40 for \$50 925-447-7070

Couch, custom built, 3 pillow, light brown/pinkish, traditional not overstuffed, very good condition. \$100 925-449-7760

2 set-oak baby crib, no mattress. used 3 yrs by twins. excellent condition. make offer 925-426-0648

Asst furniture: sofabed/reclining loveseat \$500/both. endtables w/lamps \$25. solid oak credenza \$25. spanish-style 4pc coffee/end tables set \$25. 209-833-1201

Firewood storage rack. 4 feet X 8 feet X 16 inches. Square steel tubing. Great condition. Disassembles. \$50 925-513-4767

Oak Entertainment center holds 36-in TV. White washed oak table/chairs butterfly leaf, both less than a year. Moving, offers accepted. 209-614-1111

Teak mission-style futon frames, one queen, one double. Solid. \$250 each. 925-947-1120

Aroma Prestige 6 function rotisserie, broiler, toaster, defrost with timer. Hardly used. \$40.00 510-537-7222

7-pc bed set \$850. Dresser[39x30x18D], mirror, chest[31x38x18D], nightstand[22x24x20d], headboard, full mattress/box spring, bedframe 925-457-7379

Dresser w/mirror and 2 matching nightstands with oak finish. Asking price is \$300.00 for all 3 pieces. 925-679-3223

NEOLT 3 drawer art cart. Used excellent condition. Listings on Ebay @\$299 for new, \$100. 925-447-2224

Assorted seasoned hard-shell gourds for hobby, art or decoration. Call for appointment 925-455-1776

Girls white bunk bed w/pink drws (can be two beds) \$100. Little Tykes Cottage toddler bed \$60. Both beds inc. mattresses. 209-239-6526

Like new reclining rocker- J.C.Penny brand. Wine color- large and comfy. \$75/obo 925-443-2085

THOMASVILLE Pecan King Pier Group w/armoires, triple dresser w/beveled tri-fold mirror. Beautiful! New 11K, asking 3K. 209-833-8105

IKEA twin loft bed - approx. 5 ft clearance under bed - natural wood color. Ladder/Rail included. Asking \$100 OBO. Will bring to work to exchange. 209-474-9118

Ladder, 6ft wooden, perfect cond. \$20, Wall mirror 5x3.5ft nice blk frame, new \$75 925-980-9336

Dining room table, rectangle w 2 leaves to sit 10. Medium dark wood, 6 chairs-2 arm. \$150, 925-443-3621

Solid oak mission/arts and crafts desk \$90.00/offer. Antique oak 50 inch round dining table \$125.00/offer 209-834-8665

Gold drapes one-way 9.5ft.x7ft., 2 two ways 13ft.x8ft. and 7.5ft.x7ft.plus hardware-\$100. Queen sofa/sleeper-Brown/Yellow-\$75.Plum carpet pieces \$45. 925-447-2282

LOST & FOUND

Found a pair of cycling gloves (size medium). 925-443-9727

MISCELLANEOUS

Garage Sale. Livermore, 1598 De Leon Way, Nov. 11-12, 8:00-5:00. Twin bed, butcher block table, books, lamps, small appliances, holiday decorations, sewing stuff, lots more. 925-443-4555

Decorative light fixtures: 1 chandelier and 2 matching pendants. Polished brass with candelabra bulbs. \$10 each or all three for \$25. 925-454-8827

GARAGE SALE. Nov 12 + 13 Livermore, 874 Bellflower St. Couch, Futon, Coffee Table, books, gas grill, and other household items. 925-922-2639

Walnuts - Machine cracked \$3.50/lb. Fundraiser for EU Choir Trip. 209-403-4942

Very heavy duty welded-steel Christmas tree stand with water container 7 inches in diameter and 6 inches in height. Painted dark green. \$25. 925-846-3653

Sears Kenmore dryer one year old, moving. Make offer. 209-614-1111

LINKSYS Wireless-G 2.4GHz Speed Booster Router\$40. Wireless-G 2.4GHz Broad Band Router\$20. 925-513-1786

15 KW Generac generator w/ transfer switch. Brand new still in shipping crate. Runs on natural gas or LPG. \$4000 209-838-1490

Angus beef cattle for sale ~800 pounds available through November. Call for appointment. 925-455-1776

Vintage, 6 foot long, Solid oak typesetter table converted to bar. Includes 2 wooden type trays. \$450 obo 209-833-6452

Desk, large, med. oak. 5 drawers-2 file and pencil. \$100, 925-443-3621

Glass cabinet style fireplace screen/fireplace tools/kindling holder. Like new. \$50.00/offer 209-834-8665

Reloading equipment. MEC 600 Jr press with tons of accessories. Call for details. \$100 obo 925-240-7374

Soroptimist holiday tour of beautifully decorated Livermore homes Saturday, December 3 from 10:00 - 3:00. Call for tickets 449-4079, \$25 per-person. 925-447-1290

Infant swing; Fisher Price aquarium swing; Like new: music, lights, 6 speeds, Motorized mobile. Sell for \$50. Cell phone: 209-679-5620

MOTORCYCLES

2005 - Detachable back rest pad and hardware for 05 Harley FatBoy (Brand New)

4300.00 New-Asking \$100.00 422-6122 209-992-6027

1980 - Yamaha SR 250. 9400 miles, new tires, runs great, looks good. Perfect first bike. Parked in Lab for-sale lot beginning 11/11/05. 916-390-4395

2003 - Yamaha yz85, great trail bike..but also set up for racing. Very clean & runs great. Too many extras to list \$1,800 OBO 925-373-6641

PETS & SUPPLIES

Pet door for sliding patio door. \$10. 209-833-1201

Bird House, handmade. Never used. Can bring to lab if interested. 8.00 510-537-7222

Adorable JRT Puppies! 3 females (\$600) & 2 males (\$500)-ready December 8! JRT pedigrees-fun loving personalities-make super Christmas presents! 408-218-9898

Aquarium, 55 gal. salt water reef tank, complete with wood stand, supplies, and occupants, \$500 obo 209-239-7345

Working cow dogs. Ready to go. Call for appointment. 925-455-1776

3 parakeets need a new home. We will provide a large cage and everything else needed to take care of the birds. Asking \$50... 925-803-1606

Australian saddle for sale. Great condition. Used only 3 times. \$500. 925-961-0845

RECREATION EQUIPMENT

Jacuzzi self contained portable whirlpool redwood spa 6ft x 6ft, good condition, seats 4 adults, \$500 obo 209-239-7345

Scuba fins. Scubapro original jet fins. Size XL will fit 9.5-11. Like new! \$50 925-980-7532

Horse hay(beardless barley) available for recreational trail and equestrian activities. Call for appointment. 925-455-1776

Bow, Jennings Promaster, CAMO Color, Single Adjustable Cam, Draw Length 25 to 27 inches, \$250 925-447-6819

Bicycle trainer, Performance Magnetic style adjustable friction switch attaches to handle bars. Hardly used! \$50.00 925-846-2843

Nordic Track - Sequoia model solid oak/digital monitor excellent condition- \$50/offer 209-834-8665

RIDESHARING

Express your commute, call 2-RIDE for more information or visit <http://www.rlnl.gov/tsmp>.

Modesto - Ripon - 14 Passenger van. Immediate openings for riders and/or part-time drivers. 8:00 - 4:30 shift, M-F. 209-544-6411, ext. 2-2727

Valley Springs - Wanted: Carpool M-F from Valley Springs-Linden to Lab. Flexible hours. 209-887-2353, ext. 2-9899

SERVICES

ClutterLess(CL) Self Help Group. Clutter stressing you out? Mondays 7-8:30 PM. Come: Pleasanton Presbyterian, Rm 7, 4300 Mirador Drive, or call 925-426-5311

Hauling/Handyman Services, San Joaquin County/Livermore. 209-456-7828

Need baby-sitter for evenings and week ends. College students or mature high school students. Previous experience with infants is appreciated. 925-243-1033

Carpal-tunnel, plantar-fasciitis, Achilles tendonitis, tennis-elbow, back and knee problems gone. Amazing tech. Certified Massage Therapist. 510-366-9767

Too busy for holiday baking? Let me do it for you! Specialties are mini carrot cakes and mini breads, great for gifts. 925-960-1326

SHARED HOUSING

Livermore -- spacious room for rent, 350 square feet, includes kitchen, bath, utilities, but no laundry facilities. Walking distance to Lab. \$650 per month. Parking. 510 714-6067.

Tracy - Room 4 Rent/private bath, fur-

nished/unfurnished, all privileges. Quite/newly developed safe neighborhood. Smoking (outside only). \$650+\$200 deposit. 209-601-4137

Livermore - Livermore mobile home available in country setting. Call for appointment 925-455-1776

Discovery Bay - House or room for rent. Near fast water. Nice quiet neighborhood. No pets or smokers. 925-525-4255

TRUCKS & TRAILERS

1991 - Custom paint, tires, exhaust, 4 inch lift 510-552-9971

1999 - Toyota Tacoma SR5 4WD V6 extra-cab, Automatic, AC, Black, Alpine CD, bed-liner, extremely clean/excellent cond. Must see to apprec. 113K mi \$12.5K obo 925-487-4655

2004 - Toyota Tundra, Access Cab, Limited Pkg. 4WD, fully loaded, deep red with tan leather. 17K miles, excellent condition. \$27K OBO 925-443-2424

1986 - F-250 6.9L Diesel, Super Cab, Auto, 4WD, Banks Turbo, Gear Venders Overdrive, ~175K miles. Runs good, needs TLC \$2800 209-838-1490

2001 - Coachman Travel Trailer (26ft)has one slide-out. Excellent condition. Generator included. \$16000 OBO 209-835-8747

1994 - Chevy Silverado standard cab short bed bed cover lowered 2 wide wheels tires alpine stereo tuned up smogged 160 K \$5.500 925-825-0954

2002 - National Splash Travel Trailer 21 foot. Fully self-contained. Excellent condition. \$10,250. 925-846-3943

1989 - Starcraft TentTrailer, sleeps 6, electric/propane ref, heater, in great condition. Tows nicely behind car or SUV. \$2500 OBO 209-538-1568

VACATION RENTALS

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. 925-449-0761

Squaw Valley, CA - Thanksgiving week (11/20-27). 1 bedroom timeshare available at Olympic Village Inn. Sleeps 4+, furnished/kitchen, ski & hiking. Good rate. 415-543-3643

Tahoe Donner (Truckee) - Cabin 3Br/2ba. Near multiple ski resorts. Donner amenities included. 30 min. to Reno. Available through 12/15. Thanksgiving is open too! 925-858-0419

Las Vegas, Nevada. - A week in a five star condo in the Strip. 2 bed rooms/2 baths. Available only from Nov. 20 through 26. Ask for \$400. 925-683-5003

Solana Beach/Del Mar - Oceanfront condo, deluxe 2 br., 2 1/2 ba., fully equipped, tennis, jacuzzi, gated and covered parking, near San Diego attractions 925-443-2271

Puerto Vallarta-2 master Br oceanfront condo, all amenities, available 1/5/06-1/12/06. Playa Del Sol-Costa Sur Resort. \$525 wk. 209-545-1308

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath Chalet,nicely furnished, quiet area,all amenities,close to all skiing, reserve now for holidays!thanksgiving open1 209-599-4644

ELK,DEER,BEAR HUNTING Grand Junction, Colo. 120 Acres near Natl Forest 4 men Heat/cabin incl. 1 week \$1000. per 925-625-8272

WANTED

CAROUSEL HORSE - full size. Any condition considered. 925-200-6227

Sliding closet doors. White or mirrored preferred. 209-833-1201

Skateboard or Bmx Half pipe, or other type ramps for free or reasonable price. Will pick up and disassemble. 925-625-7914

Need MOVING boxes in all shape and sizes. Would prefer free if you have them, but can pay some \$\$ as needed. 209-833-5033

Wanted: Retired ties for quilting. All colors and designs okay. 925-330-6757

ANASTASIO

Continued from page 1

what you're doing. Accidents are preventable whether at work or at home."

The Laboratory has made "real progress" in safety over the last six months, progress validated by LLNL senior management as well as external reviewers. "I thank all of you for your efforts," Anastasio said. "But we have more to do. Safety, like security, is something that we must never lose sight of and must be integrated into everything we do."

To ensure a safe work environment, employees need to take personal responsibility for their own safety as well as for the safety of co-workers, he said. "A safe work environment means having a work culture that demands this behavior and that encourages co-workers to help each other, because we care about each other."

FY05 highlights

Anastasio took time to review achievements from the last fiscal year in science and technology and operations.

Highlighting accomplishments in stockpile stewardship, Anastasio praised the "tremendous breakthrough" made by Lab scientists in understanding "energy balance" in nuclear weapons. He also mentioned important milestones achieved in resolving aging issues for plutonium using the JASPER gas gun at the Nevada Test Site and computer simulation. The effort involved time-critical work at Bldg. 332 carried out with much-appreciated approval from the Site Office. Anastasio went on to congratulate all the employees who have worked hard to stand Bldg. 332 back up to full operational status.

He also noted technical and scientific progress on the National Ignition Facility (NIF) and announced that NIF activities will be "almost fully funded" under the budget agreement reached by Congress earlier this week (see accompanying article, page 1).

Other science and technology highlights Anastasio mentioned included: a neutron interrogation system for inspecting ship cargo and detecting nuclear materials in shielded containers; important scientific milestones in understanding star formation near black holes; and re-establishing U.S. leadership in high-performance computing with the Advanced Simulation and Computing program's BlueGene/L supercomputer.

"The Lab's science and technology continues to garner national attention," Anastasio said. He cited Livermore's four recent R&D 100 awards and the *Discover Magazine* Top 100 list. He also showcased six recent trade and magazine journal covers that featured Laboratory breakthroughs.

Turning to operational achievements, Anastasio reported that Plant Engineering achieved 1.4 million work hours without a lost work day, adding, "This is a good model for all of us to emulate. It can be done and I want to thank the employees in Plant Engineering for this tremendous accom-

plishment."

Anastasio announced the Chief Financial Officer's (CFO) office is implementing a rate restructuring project that will allow the Lab to better understand and strategically manage costs and thereby gain cost efficiencies. "In 2005, we had 184 different kinds of rates. Our goal this year is to get to 98 and to 32 by fiscal year 2007."

Anastasio also mentioned the Lab's procurement system has been recognized as one of the best in the DOE complex. A recent peer review found eight best in class practices and 19 strengths. As a result, the Lab's signature authority was increased from \$10 million to \$20 million. "We're the only DOE contractor with this level of purchasing authority."

Budget

Addressing the FY06 budget, Anastasio noted that on Monday Congress concluded a conference to resolve differences between the Senate and House versions of the Energy and Water appropriations bill that provides funding for the bulk of the Lab's activities. "We know the bottom line for NNSA, but do not know yet how NNSA will allocate among the sites," he said. "Overall, I am very encouraged. The National Ignition Facility is almost fully funded and there's strong support for the National Ignition Campaign."

There is increased funding for research and development in nonproliferation and "other places where we will see positive impacts," Anastasio said. "But there are likely to be some cuts as well. The overall message is that we should be encouraged by what is happening."

Contract competition

Anastasio reminded employees that DOE has extended the UC contract to manage the Laboratory through September 2007, at which time competition for a new contract will have to be completed. The contract competition process will be similar to the process Los Alamos recently completed. He said DOE is "still on track" to make a decision on the LANL contract by Dec. 1.

DOE is expected to put out a "Request for Proposal" or RFP to manage Livermore in spring 2006 and proposal writing could start in earnest as early as September 2006, according to Anastasio.

"This will be a new experience for the Lab and will no doubt generate some anxiety. But the University of California has been through this twice now and Laboratory people have been involved in both the Lawrence Berkeley and Los Alamos competitions," he said. "That experience will be invaluable as we prepare for the process here at Livermore. This is assuming that the UC Regents ultimately decide to compete."

Anastasio described the Los Alamos competition process as very intense and similar, in some respects, to a Ph.D. oral exam "except it was done collectively as a group in a much more formalized process."

Regardless of what decision DOE makes on the Los

Alamos contract, "there inevitably will be change for the Laboratory as well," he said.

The future

Looking to the future, Anastasio summarized the work of the Aurora teams in "identifying actions that move us toward our 2025 vision." (see accompanying Aurora article, page 1). He also announced near-term initiatives to "enhance the effectiveness and efficiency of the Lab" in preparation for longer-term Aurora initiatives and proposals.

"The best way to enhance effectiveness and efficiency is with some belt tightening uniformly implemented Labwide," Anastasio said. "We have to cut back on some things to start new ones."

He reported that he has asked each associate director to carefully review expenditures in each organization and make specific reductions in supplies and expenses, such as travel, information technology purchases, office equipment, office moves and light construction.

"This is not a response to an imminent budget crisis," Anastasio emphasized. "It is finding a way to the future."

Anastasio also announced additional measures: Jan Tulk, associate director for Administration and Human Resources, will lead a senior management group that will develop a workforce restructuring plan "to ensure we have the right workforce with the right skills for the future."

Dave Leary will lead another senior management group that will review all business processes, cutting across Laboratory organizations "to ensure we have the best business practices and systems needed for the future."

In addition, Anastasio announced the formation of four new executive councils, each comprised of the senior management team, which will work cross-cutting issues related to: Workforce; Programs/Science and Technology; Business/Facilities; Safeguards and Security/Environmental safety & Health. These councils will act on some of the initiatives developed by Aurora teams.

"I am convinced that the best way to take the Lab to the next level is through more effective planning and execution of integrated strategies for the Laboratory," he said.

Anastasio concluded his presentation by returning to his opening theme. "These are exciting times. We have the opportunity to shape and position the Lab for the future. We must face challenges and change to meet our goals. Last year was an outstanding year in which we met those challenges.

Anastasio concluded his talk by acknowledging Laboratory employees. He displayed a slide show of employees across the Laboratory who were recognized over the past year for their accomplishments. "Focusing on doing our jobs well and helping others when we can will make this coming year outstanding and put the Laboratory in the strongest position for the future. In the end this is all about you, the employees of the Lab, who are at the heart of making things happen."

AURORA

Continued from page 1

those efforts in coming years. During the Tuesday meeting, Deputy Director Cherry Murray announced team leaders and looked at ways the Lab will tackle the initiatives.

"Through these initiatives we will shape this Laboratory's future," Anastasio said. "This is a very exciting opportunity."

Aurora was born at the annual senior management off-site last February; Anastasio introduced the Aurora project at his all hands in April. Since that time, five committees were formed, initiatives were developed, then prioritized at a two-day offsite in July. Since then, the initiatives have been further reviewed by the Senior Management Council and weighed against other Laboratory priorities and commitments.

"We were very pleased with the initiatives that the teams presented," Murray added. "It is clear that a great deal of effort and strategic thinking went into these ideas."

Initiatives will move forward through a number of venues — including the normal LDRD process, as part of existing programs or directorate missions, or under the direction of new executive councils. As part of his all-hands, Anastasio announced the formation of four executive councils, which will build upon some of the operational and institutional cross-cutting ideas that came forward as part of Aurora. The councils' areas of responsibility will be Programs/Science and Technology; Business and Facilities; Workforce; and Safety & Security/Environmental Safety and Health. Comprised from members of the Senior Management Council, the councils will examine from an institutional perspective ways to enhance the overall efficiency and effectiveness of the Lab.

Anastasio took time at both meetings to thank Aurora team members for their hard work. "These initiatives repre-

sent some of the breakthrough opportunities that can shape the future of our Laboratory and our country," he summed up.

The initiatives, the team leaders, and the approaches being taken are listed below. In coming weeks, teams will be defined, and milestones and timelines will be developed. Updates on the progress of these initiatives will appear in *Newsline* and *NewsOnLine* as well as the Aurora Website, located on the portal, <https://www-r.llnl.gov/>

Predictive Knowledge Systems — Jim Brase, team leader; funded through a new LDRD Strategic Initiative (SI).

Energy Security — Jane Long; to be addressed through the funding of workshops of the Athena Framework, the Energy and Environment Directorate's effort to stave off global warming through alternate forms of energy, as well as funding of an energy-modeling consortium.

High-Energy Density Science for the Future Fusion Laboratory — Bill Goldstein, Ed Moses; funding of Jupiter Laser Facility operations as both a Labwide and external user facility.

Leadership Development/Knowledge Transfer — Jan Tulk, Art Wong; to be addressed by the Executive Workforce Council.

Central Ownership of Operations and Infrastructure — Dave Leary, Cherry Murray, Wayne Shotts, George Miller, Lee Younker; to be addressed through creation of the executive councils and a new institutional governance model.

Building the Biological Foundations for 21st Century National Security — Elbert Branscomb, Ray Juzaitis, Paul Hoeplich; Livermore Microarray Center operations funded; planned LDRD for massively parallel DNA and protein detection; LDRD SI for membrane protein research.

Open Space — Dave Leary; being addressed by Executive Business/Facilities Council.

Support to the Warfighter — Ray Juzaitis; deferred

until the next fiscal year.

California Collaboratory — Doug Rotman; workshops on regional climate impacts and LDRD.

Reliable Replacement Warhead — Now renamed Transformational Materials Initiative with Lou Terminello as team leader; new LDRD SI.

Center for Surety, Security and the Proliferation of Nuclear Systems and Materials — Dave McCallen; G&A funding to address lab directors' nuclear power initiative through planning, developing whitepapers, and hosting a Department of Energy workshop.

Accelerated Inertial Fusion Energy — Bill Goldstein, Ed Moses; Advanced Radiographic Capability funded, Jupiter operations for developing the external user community.

Relationship Building — Ron Cochran, Dona Crawford, Susan Houghton; to be determined.

Adaptable Facilities for Conceptual Science — Dave Leary, Denise Robinson; deferred until the next fiscal year.

Revitalizing Sustainable Science — Cherry Murray, Rokaya Al-Ayat; to be addressed by Executive Programs/S&T Council.

Recruitment/Diversity — Art Wong, Jan Tulk, Tomas Diaz de la Rubia, Cherry Murray; to be addressed by Executive Workforce Council.

Improving Employee Health 24/7 — Bill Bookless; to be addressed by the Executive Council on S&S/ES&H.

Anastasio and Murray unveiled an 18th initiative that arose outside the Aurora process. Called "Peloton," the initiative aims to bring to LLNL a new 35 teraflop capability computer, along with a five teraflop capacity machine, which will allow Lab scientists and their collaborators nationwide to pursue aggressive science projects that can only be contemplated at a few institutions worldwide. The team will be led by Michel McCoy.

Science publishes article by Lab's Don Prosnitz

By Stephen Wampler

NEWSLINE STAFF WRITER

New technologies to combat threats from weapons of mass destruction (WMDs) should not be developed in a legal vacuum.

This contention is advanced by Don Prosnitz, the deputy director of the Laboratory's Homeland Security Organization, in an article that appears today in the journal *Science*.

"Balancing security and civil liberties is a shared burden. Courts, legislatures (and the citizens they represent), and the technical community must all participate. Scientists and engineers who are aware of limitations on search and seizure in the U.S. Constitution can help ensure that the technical community's efforts will be maximally useful," Prosnitz said.

During the summer of 2001, the U.S. Supreme Court in *Kyllo v. United States* held that law enforcement's viewing of a private residence, without a search warrant, with an infrared camera was unconstitutional based on the Fourth Amendment.

Three months later, the September 11 ter-

rorist attacks occurred, followed the next month by the mailing of letters with anthrax spores to members of Congress.

In subsequent weeks, the nation's scientific and technical community was mobilized to design and deploy advanced sensors — not in general public use — capable of detecting WMDs.

However, as Prosnitz noted, "virtually all operational scenarios for detecting WMDs preclude obtaining either prior consent for a search or a warrant." So, given the *Kyllo* decision, how can searching for WMDs be made compatible under the Fourth Amendment?

Although developers of WMD detectors cannot anticipate future court decisions, in Prosnitz's view they can apply four criteria to address traditional constitutional limits.



Don Prosnitz

One critical criterion is sensor discretion, under which a noninvasive sensor would only disclose contraband. Second, the instrument's performance needs to be well documented. Third, the sensor clearly must be effective. And fourth, the sensors need to be readily available.

Prosnitz noted that all of these criteria can be addressed in the technology development process. For example, information barriers can be used to allow sensors to detect items of interest without revealing "private" details.

Sensor effectiveness can be demonstrated in progressively challenging environments, from experiments through test beds

and pilot deployments.

With awareness of the role of the Fourth Amendment, Prosnitz said scientists and engineers can develop new sensing systems that give law enforcement the critical information it needs without infringing on civil liberties.

BUDGET

Continued from page 1

Campaign, the Facilities and Infrastructure Recapitalization Program (FIRP), environmental projects and operations and safeguards and security.

One specific budget item of great interest was the FY06 appropriation for the National Ignition Facility (NIF). The negotiations ended with LLNL receiving \$327.4 million this year for NIF, a shortfall of \$10 million from the president's original budget request. This funding level will enable the continued construction of NIF in support of its stockpile stewardship mission.

LLNL Director Michael Anastasio expressed his gratitude for the committee's continuing support for NIF.

"We are committed to bringing NIF on line as quickly and efficiently as possible and we look forward to working with NNSA to minimize the impact of the \$10 million FY06 shortfall and to optimize the overall Stockpile

Stewardship Program and our national security responsibilities," Anastasio said.

In addition, the Inertial Confinement Fusion Program and the High Average Power Laser Program were fully funded. The conference committee also allocated an additional \$10 million to the president's proposed budget for the national target fabrication program.

NIF Associate Director Ed Moses said, "This is a great vote of confidence in the Lab and our partners to finish the NIF and make ignition a reality. It is a reaffirmation for the vital role NIF plays in the Stockpile Stewardship Program."

The facility is more than 80 percent complete. Eight of its 192 laser beams have already been placed into operation, and more than 1,100 of its approximately 5,600 optical modules have been installed. The project is scheduled for completion in mid-2009, with the first ignition experiments expected to begin the following year.

Moses was most appreciative of the broad support around the country and credited the efforts of the all those working on

NIF. "None of this would have been possible without the tremendous progress we have made on the NIF and on the National Ignition Campaign," he said. "It is a tribute to all that you do every day."

Newsline will provide future stories as the Lab's budget specifics become available.

Discovery Center Closed on Mondays

The Lab's Discovery Center located at Greenville Road and East Gate Drive, will be closed on Mondays, effective Monday, Nov. 14. The Discovery Center will be open Tuesday through Friday, 1-4 p.m. and Saturdays, 10 a.m.-2 p.m. For more information, call 3-3272.

Ride on



JACQUELINE MCBRIDE/NEWSLINE

Top, Al Villa of the Lawrence Livermore Armed Forces Veterans Association leads Lab Ride II. More than 157 riders participated and \$3,800 was raised for the Lab's Adopt-A-Platoon program and Toys for Tots. Inset, Cathy Kaplan, center, donates a toy as Chelle Clements, Lee Neely and firefighter Gordon Dakin watch.



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